

CSO 119 South Barrel Conversion And Sewer Separation Project



PROJECT SCHEDULE:

- Preliminary design is underway.



PROJECT LOCATION:

- The project area is bounded on the north by Y Street; on the east by 13th Street; on the south by Harrison Street; and on the west by Railroad Avenue.

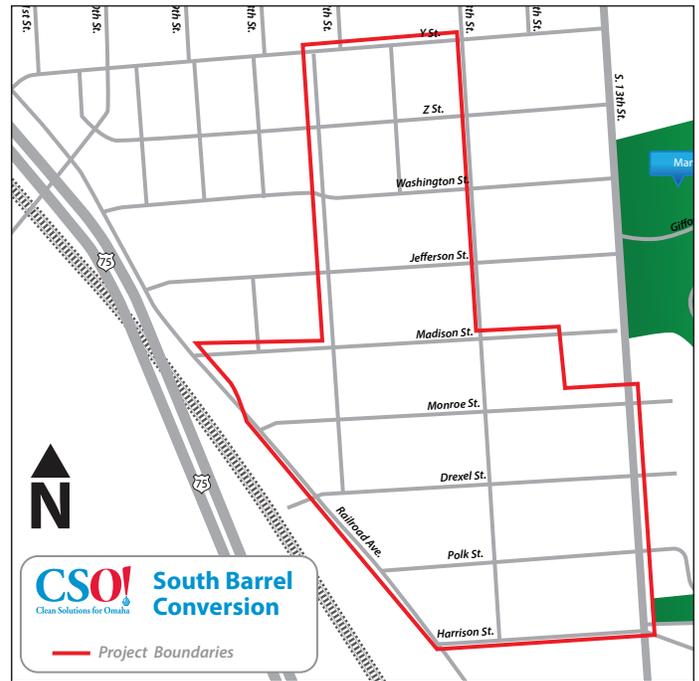
The primary objective of this project is to completely separate the “South Barrel” so that it can be converted from a combined sewer to a storm sewer-only conduit to the Missouri River.

Converting the South Barrel to a storm only sewer will result in all wastewater flows being directed to the North Barrel, where these flows can be diverted for treatment at the Missouri River Water Resource Recovery Facility (MRWRRF) during dry weather conditions.

The South Barrel is the southern of two existing combined sewers that make up the “Monroe Outfall” in the Ohern/Monroe CSO sub-basin. North and South Barrels were originally constructed as concrete sewers, together comprising the Monroe Outfall. The South Barrel was originally constructed as the “City of South Omaha Mud Creek Main Sewer” in 1907, followed by the North Barrel constructed as Storm Sewer #1120 in 1933.

Under existing conditions, North and South Barrels are interconnected through two sets of “windows” or openings, which serve to balance the flow between the Barrels in Structure 104 at the intersection of Railroad Avenue and Washington Street. Three additional openings connect the Barrels in Structure 105 west of the intersection of Railroad Avenue and “Y” Street. These interconnecting openings cause both the North and South Barrel sewers to function as combined sewers, where dry weather flow is diverted to the MRWRRF, and wet weather flow enters the Missouri River as combined sewer overflow.

By closing or reducing the number of openings between North and South Barrels, closing diversion structures



along Monroe Street downstream of Railroad Avenue, and disconnecting sanitary and combined sewer flow from the South Barrel, the South Barrel will be converted to primarily a dedicated storm sewer, except during extreme storm events, that outlets directly to the Missouri River. The North Barrel will remain as a combined sewer, diverting dry weather flows to the MRWRRF and wet weather overflow to the Missouri River. As a result, the volume capture of wet weather flows will increase in the Ohern/Monroe basin.

Secondary objectives include completing local sewer separation in a portion of the neighborhood east of Railroad Avenue, south of Jefferson Street, west of 13th Street and north of Harrison Street. Sewer separation in this area is necessary to ensure that no combined sewer connections remain connected to the South Barrel.

This project will result in reduced flows in the downstream combined sewer system and thereby reduce combined sewer overflows into the Missouri River.